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			PARK, JEONG S	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

#### Application No. Applicant(s) 10/531,291 BANATRE ET AL Office Action Summary Examiner Art Unit JEONG S. PARK 2454 -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --Period for Reply A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS. WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION. Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication. If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b). Status 1) Responsive to communication(s) filed on 11 November 2009. 2a) ☐ This action is FINAL. 2b) This action is non-final. 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11, 453 O.G. 213. Disposition of Claims 4) Claim(s) 1-11.18 and 36-47 is/are pending in the application.

4a) Of the above claim(s) is/are withdrawn from consideration. 5) Claim(s) \_\_\_\_\_ is/are allowed. 6) Claim(s) 1-11,18 and 36-47 is/are rejected. 7) Claim(s) \_\_\_\_\_ is/are objected to. 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement. Application Papers 9) The specification is objected to by the Examiner. 10) The drawing(s) filed on is/are; a) accepted or b) objected to by the Examiner. Applicant may not request that any objection to the drawing(s) be held in abevance. See 37 CFR 1.85(a). Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d). 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152. Priority under 35 U.S.C. § 119 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f). a) All b) Some \* c) None of: Certified copies of the priority documents have been received. 2. Certified copies of the priority documents have been received in Application No. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)). \* See the attached detailed Office action for a list of the certified copies not received.

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### DETAILED ACTION

#### Continued Examination Under 37 CFR 1.114

- 1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 11/11/2009 has been entered.
- This communication is in response to Application No. 10/531,291 filed on 4/14/2005. The amendment presented on 11/11/2009, which adds claim 47, is hereby acknowledged. Claims 1-11. 18 and 36-47 have been examined.

### Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

 Claims 36-42 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Claim 42 is drawn toward the modules, which are just software that are intended to be implanted is hardware. Therefore the modules are merely software, per se. As such, software, per se does not establish a statutory category of invention.

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Claims 36-41, which are dependent on claim 42, are rejected for similar reasons as stated above.

Correction is required.

### Claim Rejections - 35 USC § 112

5. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

6. Claim 47 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

The claim 47 contains direct transmission between the portable user equipment and one of the plurality of service stations and between the one of the plurality of service stations and one of the plurality of mobile service providers which was not described in the specification.

### Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

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invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

 Claims 1, 8-11 and 47 are rejected under 35 U.S.C. 103(a) as being unpatentable over Saraga et al. (hereinafter Saraga)(US Pub. No. 2002/0062192) in view of Van Valkenburg (hereinafter Van)(US Pub. No. 2005/0180343 A1).

Regarding claim 1, Saraga teaches as follows:

a method for exchanging data between a portable user equipment (mobile telephone 12 in figure 1), a plurality of service stations (base stations BS1-BS7 in figure 2) placed at selected locations and a plurality of mobile service providers (bus 14 in figure 1)(see, e.g., page 2, paragraph [0026]), said method including the steps of:

generating a first request message including designating service data at the portable user equipment (mobile telephone requests a travel-related request such as a particular travel destination, see, e.g., page 2, paragraph [0026]);

transmitting the first request message, each of the plurality of service stations (a plurality of base station BS1-BS7 in figure 2) being arranged with a short-range communication module which provides a first transmission zone, the portable user equipment including a compatible short-range communication module (the mobile phone transmits the travel-related request via one of the plurality of base stations, see, e.g., page 3, paragraph [0030] and figure 2);

generating a second request message including at least said designating service data at that one of the plurality of service stations whose first transmission zone contains the portable user equipment upon receiving the first request message (the base station via system controller (18 in figure 1) generates request for the Internet

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Service Provider to provide web-based application from a transport service provider, see, e.g., page 3, paragraph [0034]);

transmitting the second request message, each of the plurality of mobile service providers (transport service provider) being arranged with a short-range communication module which provides a second transmission zone, each of the plurality of service stations including a compatible short-range communication module (system sends the travel-related request with position data to the transport service provider, see, e.g., page 2, paragraph [0026]);

receiving the second request message at that one of the plurality of mobile service providers (a bus equipped with mobile communication device) whose second transmission zone contains one of the plurality of service stations at which the second request message was generated (the driver of the bus receives passenger information, see, e.g., page 3, paragraph [0028]); and

stopping such mobile service provider at such service station (the bus stops at the bus stop 16 in figure 1, see, e.g., page 3, paragraph [0028]).

Saraga does not teach the second transmission zone contains the plurality of mobile service providers and the plurality of service stations, but the base station (equivalent to applicant's service station) sends request to transport service provider (equivalent to applicant's mobile service provider) via PSTN and Internet.

Van teaches as follows:

a method for network formation, based on relaying an available service to another device, focusing on Bluetooth networking and Personal Area Networking (PAN)

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profile by extending a provided service to a larger area than one single Bluetooth piconet in forming of multihop networks accessing a certain service (see, e.g., page 1, paragraph (0001));

several piconets can be established and linked together in ad hoc scattemets to allow communication among continually flexible configurations (see, e.g., page 1, paragraph [0004]);

a step of connecting from first network device (equivalent to applicant's user mobile station) to third network device (equivalent to applicant's mobile service provider) by actively searching for third devices by the second device (equivalent to applicant's service station)(see, e.g., page 2, paragraph [0017]); and

a step of connecting a first piconet (26 in figure 2) and a second piconet (28 in figure 2) together to request and provide a service (see, e.g., page 4, paragraph [0045] and figure 2).

It would have been obvious for one of ordinary skill in the art at the time of the invention to combine Van with Saraga in order to efficiently provide the requested service from another piconet by establishing an ad hoc point-to-point connection.

Regarding claim 8, Saraga teaches as follows:

sending information to said portable user equipment, after receiving the first request message (the result is then output to the requested mobile telephone, see, e.g., page 4, paragraph [0036]).

Regarding claim 9, Saraga teaches as follows:

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information comprises arrival time data relative to that one of the plurality of service stations which receives the second request message (the travel service comprises the time Y before the bus arrives at the bus stop, see, e.g., page 3, paragraph [0028]).

Regarding claims 10 and 11, Saraga teaches as follows:

Since the internet service provider serves to calculate a response to the mobile telephone user's request on the basis of information indicative of the current state of the travel service offered by the transport service provider, it would have been obvious for one of ordinary skill in the art at the time of the invention to include advertising type information by indicating Internet site address.

Regarding claim 47, Saraga teach all limitations as presented above in claim 1 except for the direct transmission between the portable user equipment and one of the plurality of service stations and between the one of the plurality of service stations and one of the plurality of mobile service providers.

Van teaches as follows:

Bluetooth technology provides short-range point-to-point connections (Bluetooth wireless technology allows users to make effortless, wireless and instant connections between various communication devices, such as mobile phones, computers, printers etc. Bluetooth technology provides for a short-range wireless connectivity and supports both point-to-point and point-to-multipoint connections. Several of these 'piconets' can be established and linked together in ad hoc 'scatternets', to allow communication among continually flexible configurations, see, page 1, paragraph [0004]); and

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a step of connecting a first piconet (26 in figure 2, the first piconet is equivalent to the application's direct transmission between the portable user equipment and one of the plurality of service stations) and a second piconet (28 in figure 2, the second piconet is equivalent to the application's direct transmission between the one of the plurality of service stations and one of the plurality of mobile service providers) together to request and provide a service, see, e.g., page 4, paragraph [0045] and figure 2).

Therefore, it is rejected for similar reason as presented above in claim 1.

 Claims 2-7, 18 and 36-46 are rejected under 35 U.S.C. 103(a) as being unpatentable over Saraga et al. (hereinafter Saraga)(US Pub. No. 2002/0062192) in view of Van Valkenburg (hereinafter Van)(US Pub. No. 2005/0180343 A1), and further in view of Moore et al. (hereinafter Moore)(U.S. Pub. No. 2002/0129170 A1).

Regarding claims 2 and 3, Saraga in view of Van do not teach of determining whether a requested service is matched with available service.

Moore teaches as follows:

a system and method for providing electronic services to wireless devices (equivalent to applicant's portable user equipment) in a personal area network (herein after PAN) via a kiosk (equivalent to applicant's service station), wherein the kiosk can be extended to offer new services adding value to these existing kiosks (see, e.g., page 1, paragraph [0009]); and

Kiosks determine if the specified services reside in the kiosk or not (see, e.g., page 2, paragraph [0012]).

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It would have been obvious for one of ordinary skill in the art at the time of the invention to combine Moore with Saraga in view of Van in order to efficiently detect a kiosk which can provide requested service by using of service discovery protocols taught by Moore.

Regarding claims 4, 6, 43 and 45, Moore further teaches as follows:

ad hoc point-to-point connection (see, e.g., page 4, paragraph [0029], lines 1-5).

Therefore they are rejected for similar reason as presented above.

Regarding claims 5, 7, 44 and 46, Saraga teach as follows:

designating service data includes data defining a first spatial value (position data) which is defined at any location within a restricted physical volume (the mobile telephone has the capability to provide output signal indicative of its location, see, e.g., page 2, paragraph (00261).

Regarding claims 18, 39, 40 and 41, Saraga teaches as follows:

in the field of public transport, said mobile service means providers being public transport vehicles, in particular, buses and coaches including a bus stop (16 in figure 1 (see, e.g., page 2, paragraph [0026] and figure 1).

Saraga in view of Van does not teach the service station constituting all or part of a bus stop.

Moore teaches as follows:

a system and method for providing electronic services to wireless devices (equivalent to applicant's portable user equipment) in a personal area network (herein after PAN) via a kiosk (equivalent to applicant's service station), wherein the kiosk can

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be extended to offer new services adding value to these existing kiosks (see, e.g., page 1, paragraph [0009]); and

a method for delivering electronic services in a PAN can include providing a kiosk in a publicly traversable area (see, e.g., page 2, paragraph [0013]-[0014]).

It would have been obvious for one of ordinary skill in the art at the time of the invention to combine Moore with Saraga in view of Van in order to add bus stop station functionality at the existing kiosk.

Regarding claim 42, they are rejected for similar reason as presented above in claims 1 and 2.

Regarding claims 36 and 38, they are rejected for similar reason as presented above in claim 42.

Regarding claim 37, Saraga teaches as follows:

the portable user equipment is chosen from a group including mobile telephones and personal digital assistants (mobile telephone, see, e.g., page 2, paragraph [0026]).

## Response to Arguments

- Applicant's arguments filed 11/11/2009 have been fully considered but they are not persuasive.
- A. Summary of Applicant's Arguments

In the remarks, the applicant argues as followings:

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- 1) The claimed method differs from the cited references as it involves the use of one specific system architecture. That is, unlike the conventional service providing system, the claimed method is based on a distributed architecture and does not need any communication network. In the claimed method, each base station is self-sufficient for the delivery of the service. One base station does not need further information from any central element. Specifically, the claimed method is based on a point to point communication, without routing. In the claimed method, a first request message is directly transmitted from the user's mobile phone to the base station and a second request message is directly transmitted from that base station to one bus.

  Communication occurs only by a direct proximity between the elements that have to communicate together. There is no communication by use of a network layer.
- 2) In the claimed system, no geographical localization data has to be transmitted in the request messages. That is, the location of the requesting user does not need to be known either by the bus or by the base station. The bus driver just needs to know if he has to stop at the base station he is nearing. In addition, in the claimed system, the bus on which the user will board does not need to be identified. Instead, a bus receives the second request message once it is located in the proximity of the base station which received the first request message.

# B. Response to Arguments:

In response to argument 1) Saraga teaches that the system presents a centralized architecture which is based on communication networks. Saraga employs a

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central internet service provider and the communication between the user mobile telephone and the controller occurs through a cellular telephone network which employs the system controller connected to a public switched telephone network PSTN.

Saraga does not teach the direct transmission between the portable user equipment and one of the plurality of service stations and between the one of the plurality of service stations and one of the plurality of mobile service providers.

Van teaches as follows:

Bluetooth technology provides short-range point-to-point connections (Bluetooth wireless technology allows users to make effortless, wireless and instant connections between various communication devices, such as mobile phones, computers, printers etc. Bluetooth technology provides for a short-range wireless connectivity and supports both point-to-point and point-to-multipoint connections. Several of these 'piconets' can be established and linked together in ad hoc 'scatternets', to allow communication among continually flexible configurations, see, page 1, paragraph [0004]); and

a step of connecting a first piconet (26 in figure 2, the first piconet is equivalent to the application's direct transmission between the portable user equipment and one of the plurality of service stations) and a second piconet (28 in figure 2, the second piconet is equivalent to the application's direct transmission between the one of the plurality of service stations and one of the plurality of mobile service providers) together to request and provide a service, see, e.g., page 4, paragraph [0045] and figure 2).

In response to argument 2), Saraga teaches the applicant's claimed limitations as follows:

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The driver of the bus receives passenger information and the bus stops at the bus stop based on passenger information. The system can also provide for a mobile communications device to be located in the bus so that the driver of the bus can be alerted to the fact that a passenger should be expected at the bus stop (see, e.g., page 3, paragraph [0028]).

In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

#### Conclusion

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to JEONG S. PARK whose telephone number is (571)270-1597. The examiner can normally be reached on Monday through Friday 7:00 - 3:30 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nathan Flynn can be reached on 571-272-1915. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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/J. S. P./

Examiner, Art Unit 2454

December 14, 2009

/NATHAN FLYNN/ Supervisory Patent Examiner, Art Unit 2454